

IN THE CLAIMS

Please amend the claims to read as follows:

1. (Currently Amended) A voltage-controlled tunable filter, comprising:
a plurality of coaxial combline resonators including coaxial cavities filled with high dielectric constant material;
at least one of said plurality of coaxial combline resonators includes and at least one metallized through-hole;
an input/output coupling metallization on at least one surface of said plurality of coaxial combline resonators;
at least one voltage tunable dielectric varactor associated with said plurality of coaxial combline resonators; and
an iris with an aperture connecting said plurality of coaxial combline resonators.
2. (Original) The voltage-controlled tunable filter of claim 1, further comprising at least one DC biasing point for providing voltage to said at least one tunable varactor.
3. (Previously Amended) The voltage-controlled tunable filter of claim 1, wherein coupling between adjacent resonators is obtained via the aperture of said iris formed on a common wall between the resonators, and is controlled by the aperture of said iris size and position.
4. (Original) The voltage-controlled tunable filter of claim 1, wherein said at least one input/output coupling metallization on at least one surface of said at least one coaxial combline

resonator is two input/output coupling metallizations on at least one surface of said at least one coaxial combline resonator.

5. (Original) The voltage-controlled tunable filter of claim 1, wherein said voltage-controlled tunable filter is a coaxial block voltage controlled tunable filter.
6. (Previously Amended) The voltage-controlled tunable filter of claim 1, wherein said at least one voltage tunable dielectric varactors includes a substrate having a low dielectric constant with planar surfaces.
7. (Original) The voltage-controlled tunable filter of claim 6, wherein said substrate further includes a tunable dielectric film on the substrate comprising a low loss tunable dielectric material.
8. Cancel claim 8.
9. Cancel claim 9.
10. Cancel claim 10.
11. Cancel claim 11.
12. (Currently Amended) A method of using voltage to control a tunable filter, comprising the steps of:
 - providing a plurality of coaxial combline resonators;
 - said plurality of coaxial combline resonators include at least one metallized through-hole and an input/output coupling metallization on at least one surface of said plurality of coaxial

comblines resonators and wherein said coaxial comblines resonators include coaxial cavities filled with high dielectric constant material;

varying the capacitance of a capacitor by using at least one voltage tunable dielectric capacitor associated with at least one coaxial comblines resonator of said plurality of coaxial comblines resonators; and

connecting said plurality of coaxial comblines resonators with an iris.

13. (Currently Amended) The method of using voltage to control a tunable filter of claim 12, further comprising the step of providing voltage to said at least one voltage tunable dielectric varactor with at least one DC biasing point.

14. (Original) The method of using voltage to control a tunable filter of claim 12, further comprising the step of controlling the coupling between adjacent resonators by controlling the aperture size and position of said iris formed on a common wall between the resonators.

15. (Original) The method of using voltage to control a tunable filter of claim 12, wherein said at least one input/output coupling metallization on at least one surface of said at least one coaxial comblines resonator is two input/output coupling metallizations on at least one surface of two coaxial comblines resonators.

16. (Previously Amended) The method of using voltage to control a tunable filter of claim 12, wherein said tunable filter is a coaxial block voltage controlled tunable filter.

17. (Previously Amended) The method of using voltage to control a tunable filter of claim 12, wherein said voltage tunable dielectric capacitors include a substrate having a low dielectric constant with planar surfaces.

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18. (Previously Amended) The method of using voltage to control a tunable filter of claim 15, wherein said substrate further includes a tunable dielectric film on the substrate comprising low loss tunable dielectric material.

19. Cancel claim 19.

20. Cancel claim 20.

21. Cancel claim 21.

22. Cancel claim 22.